

No. 764,549.

PATENTED JULY 12, 1904.

J. W. BETTENDORF.
FELLY FOR WHEELS.

APPLICATION FILED JAN. 25, 1902.

NO MODEL.

Fig. 1.

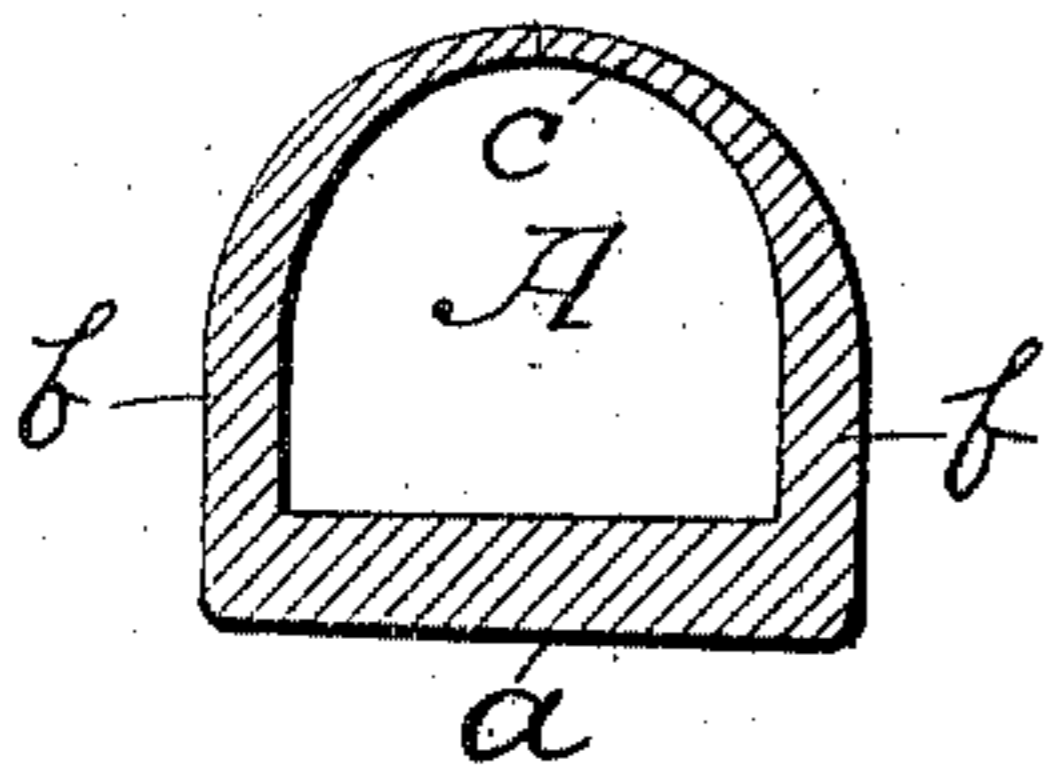


Fig. 2.

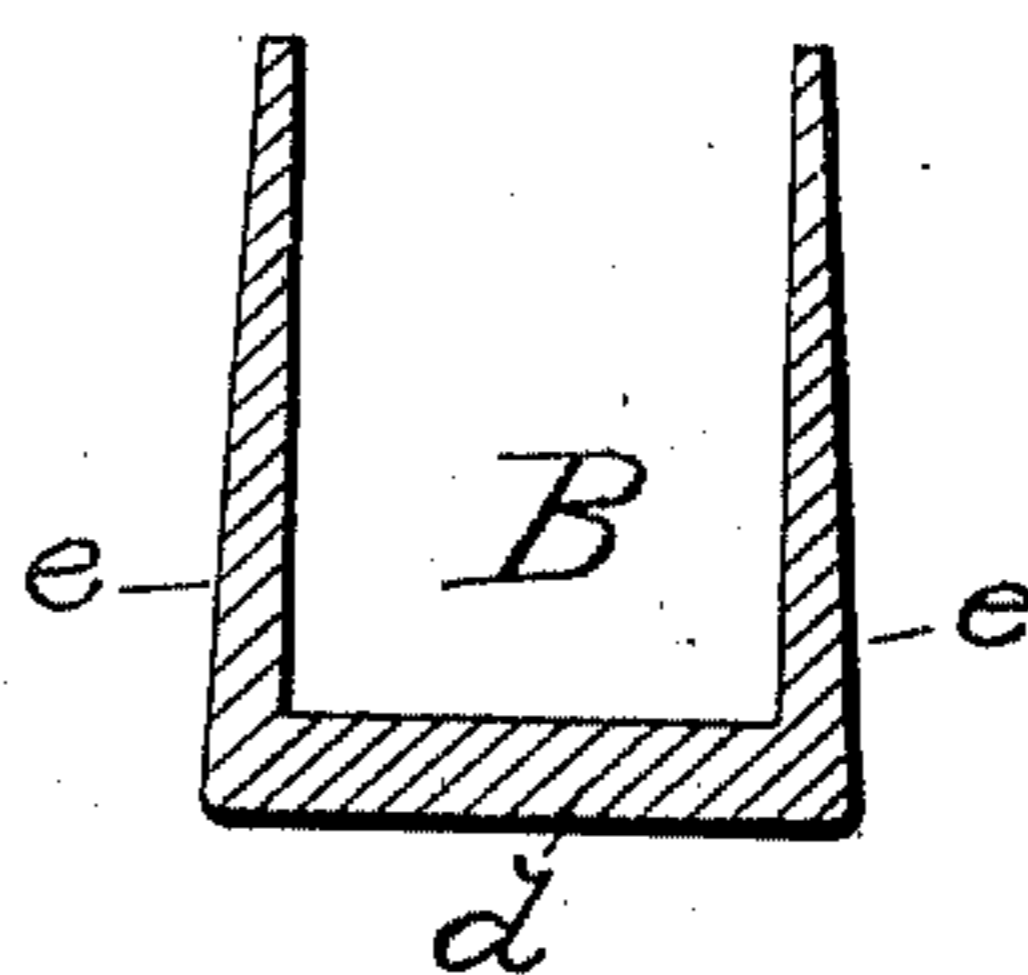


Fig. 3.

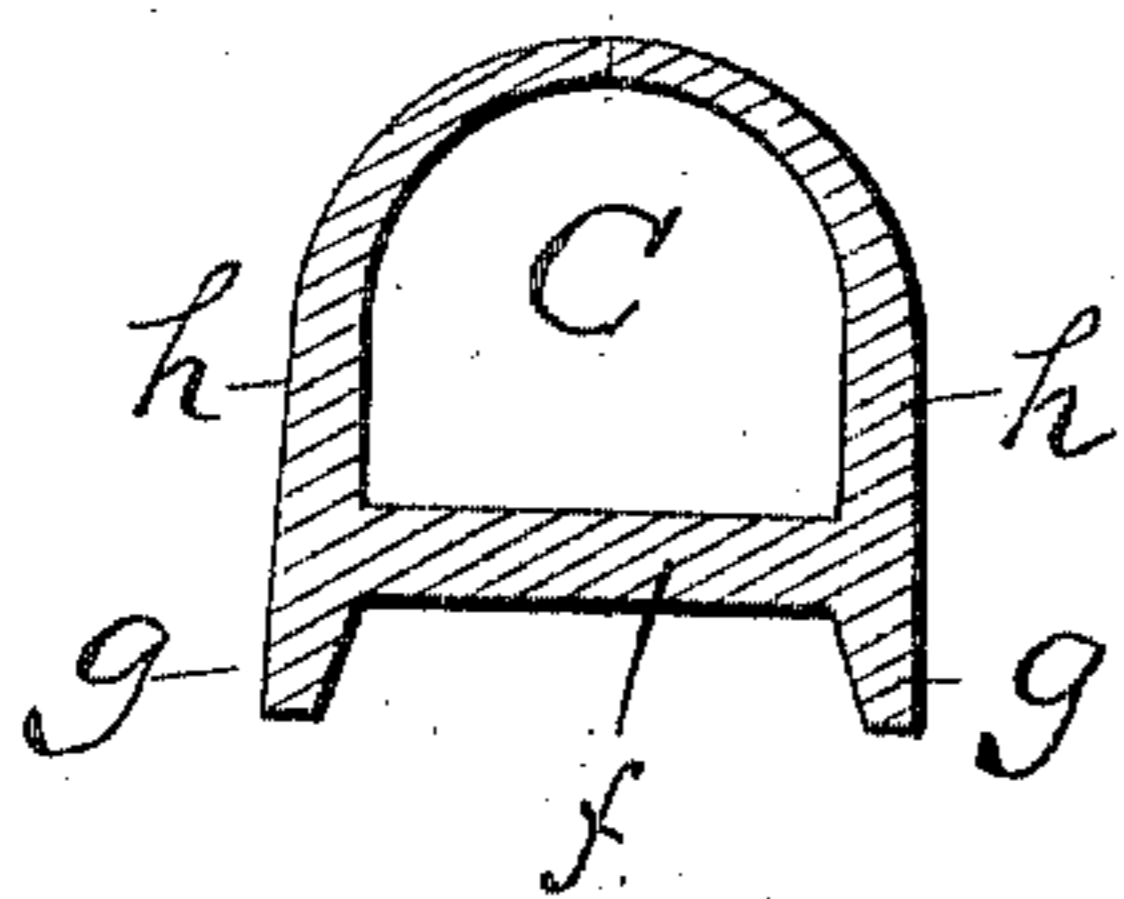


Fig. 4.

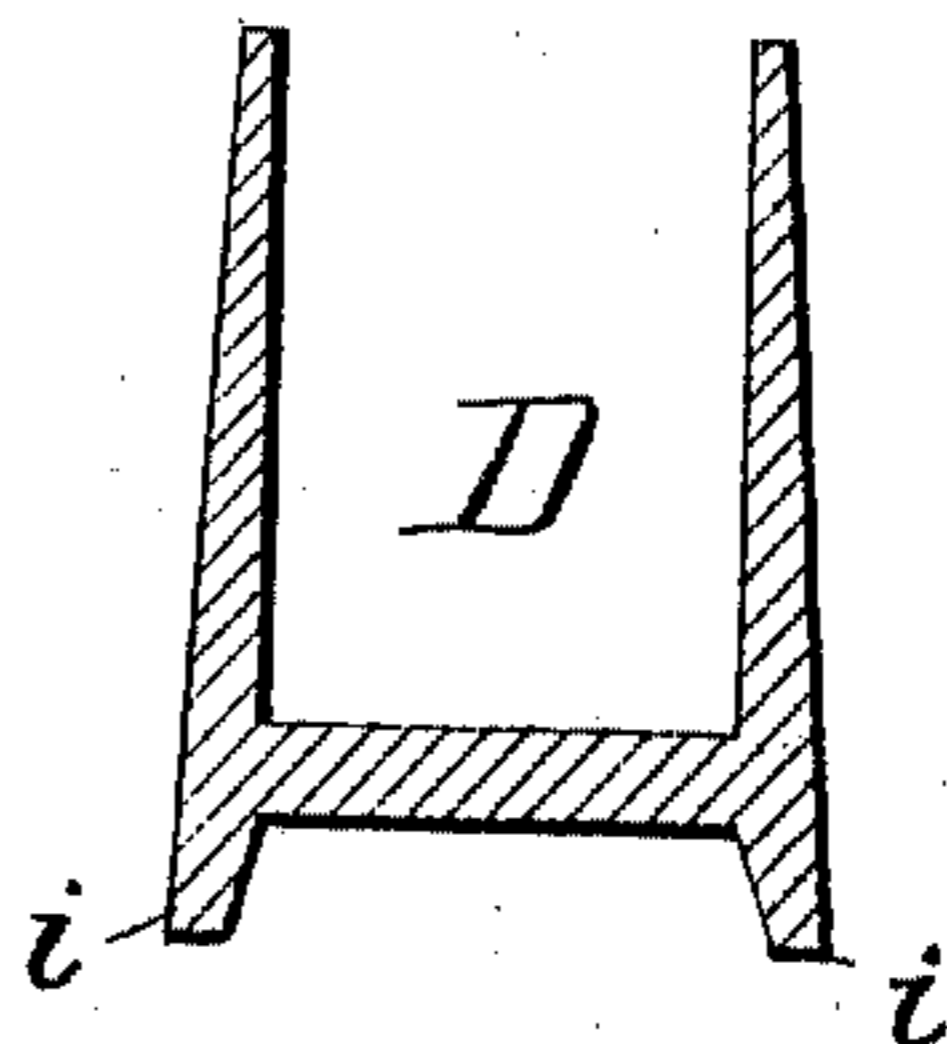
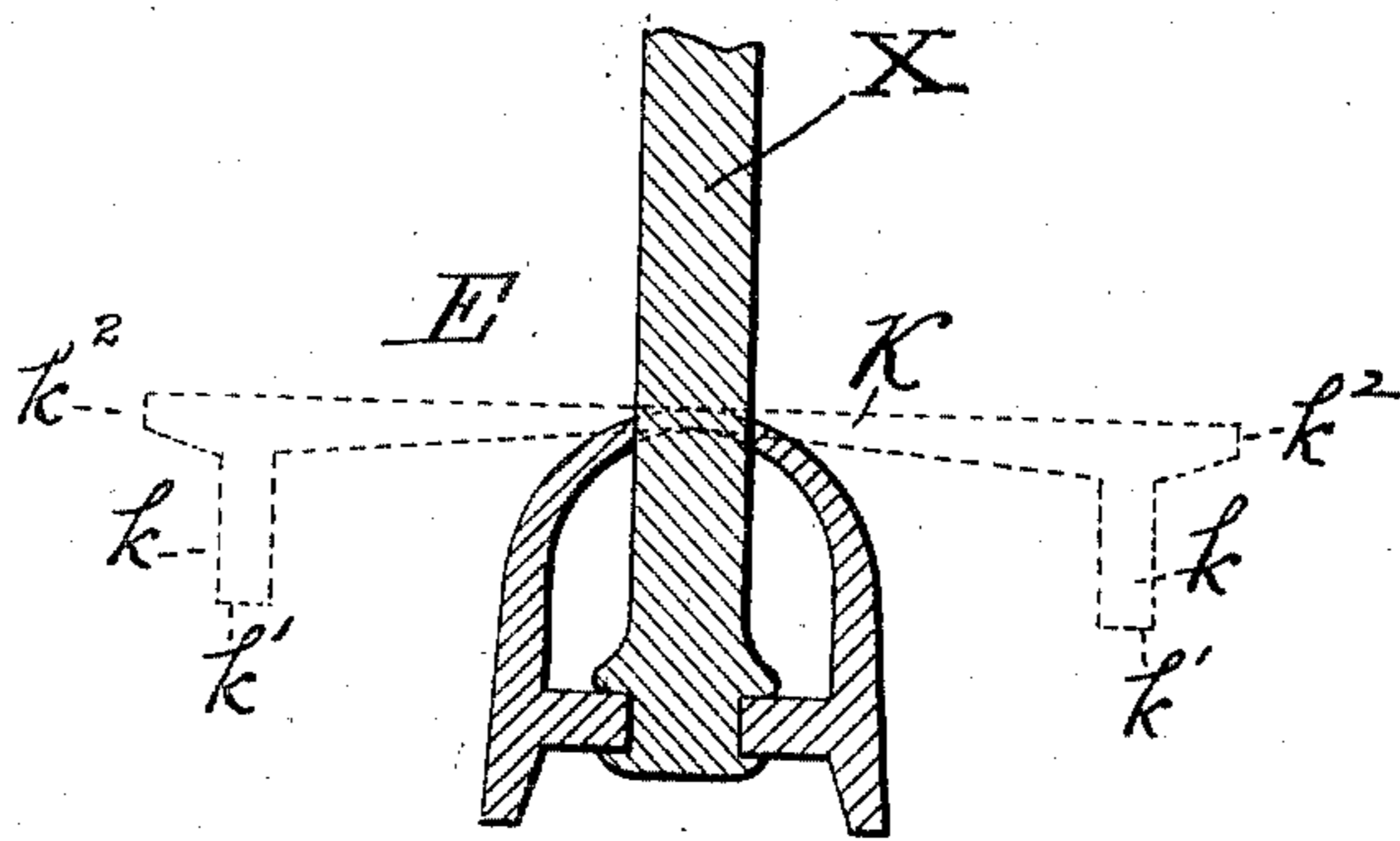


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOSEPH W. BETTENDORF, OF DAVENPORT, IOWA.

FELLY FOR WHEELS.

SPECIFICATION forming part of Letters Patent No. 764,549, dated July 12, 1904.

Application filed January 25, 1902. Serial No. 91,199. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. BETTENDORF, a citizen of the United States, and a resident of Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Fellies for Wheels, of which the following is a full, clear, and exact description.

My invention relates to a peculiarly-shaped felly for vehicle-wheels, and is especially adapted for use in connection with rubber-tired carriage-wheels. It may, however, be employed in connection with any device in which a tubular construction, such as shown, is desirable.

The object of my invention is to provide a strong, durable, and economical construction which is both simple and cheap to make. This I accomplish by the means hereinafter fully described and as particularly pointed out in the claims.

In the drawings, Figure 1 is a cross-section through the simplest form of my invention. Fig. 2 is a transverse section through the rolled-metal blank from which the same is made. Fig. 3 is a transverse section of a modified form of my invention. Fig. 4 is a transverse section of one form of rolled-metal blank from which the same may be made. Fig. 5 is a transverse section through another form of my invention, showing the blank from which the felly is made in dotted lines.

In the drawings, A represents a metal tube forming the felly, which is so constructed that in cross-section its walls conform to the shape of an arch, the principles of which it is designed to possess. The walls of this tube comprise a flat portion *a* and the parallel portions *b b*, springing from the ends of said flat portion and curved to give the tube its distinctive arch-shaped structure. Portion *a* is thicker than portions *b b*, which latter are preferably thickest at the point where they spring from the ends of portion *a* and gradually decrease in thickness as they approach the center of the arch. I prefer to construct this tube from a skelp or blank B, substantially as shown in Fig. 2. This comprises a rolled-metal channel-shaped bar, the portion *d*, connecting the parallel side portions *e e*, of

which is thicker and not quite as wide as said side portions and in the completed tube forms the flat portion *a*. The edges of the side portions are adapted to be brought together and welded to form the arch *c*, which spans over said flat portion. In Fig. 3 a modified form of this tube is shown which includes in addition to the tubular part C, which is constructed substantially the same as tube A, Fig. 1, two corresponding longitudinal flanges *g g*, projecting from each end of the flat portion *f* thereof in a direction opposite that in which the curved portions *h h* project. The tube illustrated in Fig. 3 is made from either the blank shown in Fig. 4 or shown in Fig. 5. The blank D shown in Fig. 4 is the same as the blank B shown in Fig. 2, hereinbefore described, except that it has the corresponding parallel longitudinal flanges *i i* projecting from the ends of the portion *d* opposite the side portions *e e*, which are adapted to form the flanges *g g* of the finished tube C. (Illustrated in Fig. 3.) The blank E (shown in dotted lines in Fig. 5) comprises a rolled-metal form the body of which consists of a flat web K, having corresponding longitudinal flanges *k k* projecting in the same direction therefrom, near and parallel to the edges *k² k²* thereof. The latter form corresponding side extensions which when said blank is rolled so as to bring the butt edges of flanges *k' k'* together and said butt edges are welded form the flanges *g g* of the tube C. (Shown in Fig. 3.) At equal distances apart the web K is provided with small holes or circular openings of sufficient diameter to accommodate a spoke. The edges of the flanges *k* are suitably recessed on opposite sides of the blank and at points in the same transverse plane as the holes in the web. The spoke X is inserted in the hole in the web, and when the blank is bent to its proper form and joined together the recesses inclose the lower end of said spoke, retaining the same in proper position. When fellies are made from the blanks and tubes shown in Figs. 1, 2, 3, and 4, these holes or circular openings are made in the flat thicker portion and the tapering side portions are properly recessed. The spoke is inserted in the hole in the flat portion and then the side portions are brought

together, thus holding the spoke in the same manner as in Fig. 5.

In practice the proportions and dimensions of the tube are preferably the same as shown in the drawings. They can be modified and changed, however, to suit the exigencies of the particular use to which it is intended to put them without departing from the spirit of my invention so long as the arc-shape tubular idea is preserved.

My invention can be used for many purposes, but is more particularly adapted for use as fellies for vehicle-wheels. The form shown in Fig. 3 is designed for use with rubber tires, which will be seated between the flanges *g g* thereof. The form shown in Fig. 1 can be used as a felly either with or without rubber tires.

What I claim as new is—

1. A felly for wheels comprising an endless tube of the same transverse contour from end to end, the walls of which consist of a flat thicker portion, and curved portions springing from the ends of the flat portion to form an arch over the same.

2. A felly for wheels comprising an endless tube of the same transverse contour from end to end, the walls of which consist of a flat portion and curved portions springing from the ends of the flat portion to form an arch over the same, said curved portions being gradually reduced in thickness toward their point of contact with each other.

3. A felly for wheels comprising an endless tube of the same transverse contour from end to end, the walls of which consist of a flat thicker portion and curved portions springing from the ends of the flat portion to form an

arch over the same, said curved portions being gradually reduced in thickness toward their point of contact with each other.

4. A felly for wheels comprising an endless tube of the same transverse contour from end to end, the walls of which consist of a flat thicker portion and curved portions springing from the ends of the flat portion to form an arch over the same, and comprising longitudinal flanges projecting from the ends of said flat portion in a direction opposite to said curved portions.

5. A felly for wheels comprising an endless tube of the same transverse contour from end to end, the walls of which consist of a flat portion and curved portions springing from the ends of the flat portion to form an arch over the same, said curved portions being gradually reduced in thickness toward their point of contact with each other, and longitudinal flanges projecting from the ends of said flat portion in a direction opposite to said curved portions.

6. A felly for wheels comprising an endless tube of the same transverse contour from end to end, the walls of which consist of a flat thicker portion and curved portions springing from the ends of the flat portion to form an arch over the same, said curved portions being gradually reduced in thickness toward their point of contact with each other, and longitudinal flanges projecting from the ends of said flat portion in a direction opposite to said curved portions.

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Witnesses:

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